

<https://helda.helsinki.fi>

---

## Outlining New Guidelines for the Assessment of the Education Diploma in Music

Ojala, Aleksi

2019-09-08

---

Ojala , A , Ruokonen , I , Ruismäki , H & Sepp , A 2019 , ' Outlining New Guidelines for the Assessment of the Education Diploma in Music ' , The European Journal of Social & Behavioural Sciences , vol. XXVI , no. 3 , 263 , pp. 3021-3031 . <https://doi.org/10.15405/ejsbs.263>

---

<http://hdl.handle.net/10138/307891>

<https://doi.org/10.15405/ejsbs.263>

---

cc\_by\_nc\_nd

publishedVersion

---

*Downloaded from Helda, University of Helsinki institutional repository.*

*This is an electronic reprint of the original article.*

*This reprint may differ from the original in pagination and typographic detail.*

*Please cite the original version.*

The European Journal of Social and Behavioural Sciences  
**EJSBS Volume XXVI** (eISSN: 2301-2218)

## Outlining New Guidelines for the Assessment of the Education Diploma in Music

Aleksi Ojala<sup>a\*</sup>, Inkeri Ruokonen<sup>a</sup>, Heikki Ruismäki<sup>a</sup>, Anu Seppä<sup>a</sup>

<sup>a</sup> Faculty of Education, University of Helsinki, Helsinki, Finland

<https://doi.org/10.15405/ejsbs.263>

---

### Abstract

The intention in this pilot study is to outline the preliminary guidelines for the development of new assessment practices in the education diploma in music at Finnish general upper secondary schools. The rationale for the study arose from the ongoing education policy debate in Finland that suggests that one of the academic subjects in the general upper secondary school graduation examination could soon be replaced by an education diploma in artistic subjects. The study was conducted by asking Finnish general upper secondary school music teachers and students to respond to a semi-structured e-questionnaire that aimed to find out the participants' perspectives firstly, on the general goals and importance of an education diploma in music, and secondly, on the development of the assessment practices in the diplomas. A small sample of Finnish general upper secondary school's music teachers (N=13) and students (N=5) answered the questionnaire during the 2019 spring semester. The results of data analysis suggest that participants found it problematic to incorporate different types of assessment tasks and goals in the diplomas in their present form. Against this backdrop, we recommend that the diploma should be re-designed in order to have clear assessment formats for the use of diagnostic, formative, summative and integrative assessment tasks.

© 2019 Published by Future Academy [www.FutureAcademy.org.uk](http://www.FutureAcademy.org.uk)

**Keywords:** Music education; assessment; general upper secondary school; Finland; education diploma.

---

---

\* Corresponding author.

E-mail address: [aleksi.ojala@helsinki.fi](mailto:aleksi.ojala@helsinki.fi)



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

**Received:** 20 August, 2019; **Accepted:** 05 September, 2019

## 1. Introduction

Recently, there has been an ongoing education policy debate in Finland about replacing one of the traditional academic subjects in the general upper secondary school examination with artistic subjects (Laakso, 2019). If this option is to be realized, the use of general upper secondary school diplomas as one of the selection criteria for further studies will increase. One could argue that this would have a positive effect on the general appreciation of music and other artistic subjects in the Finnish general upper secondary schools. However, the research literature suggests that establishing an equal and nationally comparable assessment of musical competence is challenging (Fautley, 2010; Fautley & Savage, 2011; Juntunen & Westerlund, 2013; Murphy & Espeland, 2007).

The main aim of the study reported in this article is to investigate the ways the participants—Finnish general upper secondary school music teachers and students who have recently completed education diplomas in music—would help improve the assessment of the diplomas. In addition to the overarching research objective, the study aims to shed light on the participants' perspectives on the goals and importance of the education diploma in music. In this article, we intend to share examples of the problematics and options of assessment in the creative and performing arts.

## 2. Background

### *2.1. Assessment practices in a changing society*

Many scholars suggest that today's students need not only knowledge and skills linked to a range of subject areas, but also future working life skills, such as the ability to think critically, solve problems creatively, and collaborate with others (Black, Harrison, Lee, Marshall, & William, 2003; Virtanen, Postareff, & Hailikari, 2015). Against this backdrop, it can be argued that assessment practices of schools should evolve with the changing society and take into account the needs of lifelong learning (Boud, 2000; Kearney, 2013; Tynjälä, Slotte, Nieminen, Lonka, & Olkinuora, 2006).

Researchers have presented various models and categorizations in order to support lifelong learning with assessment practices. For instance, Falchikov (2005) suggests that evaluation has two main objectives in educational institutes: firstly, to ensure that students have acquired enough knowledge before entering the next phase of the learning path, and secondly, to promote learning. Specifically, scholars are talking about summative and formative assessment. The aim of summative assessment tasks is to determine how well students have learned what they were supposed to learn (Harlen, 2005, 2007; Knight, 2002). In other words, it is a final evaluation. With the use of formative

assessment, also known as assessment for learning (AfL), “teachers can align their feedback with specific tasks that the student will encounter in the short term” (Crisp, 2012 p. 40; see also Black, Harrison, Lee, Marshal, & William, 2003). In other words, formative assessment means personalized, continuous, day-to-day assessment that supports students’ learning. Crisp (2012) makes a distinction between assessment tasks that are intended to measure or foster past, current and future learning. For this purpose, he is also talking about diagnostic and summative assessments and suggests that teachers should incorporate different types of assessment tasks throughout a learning period (Crisp, 2012). He posits that the purpose of the diagnostic assessment task is to determine the learner’s level of competence before the study period, whereas integrative assessment refers to those assessment events in which the primary purpose is to influence students’ future learning experiences.

## *2.2. Assessment of the Finnish general upper secondary school education diploma*

In Finland, general upper secondary school (Grades 10–12), provides eligibility for university-level education (Ministry of Education and Culture, 2014) and Finnish general upper secondary schools select students (about 50 per cent of comprehensive school graduates) according to their grades in academic subjects in the basic education certificate (Statistics Finland, 2014). Although Finnish general upper secondary school students have succeeded relatively well in academic subjects during their basic education, they seem to possess heterogeneous musical skills and attitudes towards music when beginning their studies (Juntunen, 2011).

General upper secondary school education diplomas complement the skills and knowledge the students have achieved and demonstrated in visual arts, physical education, music, theatre, media, crafts, dance and home economics. Currently, there are two ways to complete a general upper secondary school education diploma in music: a student can either prepare a music project or compile a sample portfolio. If a student chooses a music project, she/he might produce a concert or recording in which musical expertise is demonstrated. If the student chooses a sample portfolio, samples of music studies and activities are collected into the portfolio that can include video and audio recordings, notes, presentations, and writings. All Finnish general upper secondary school students are free to do the diploma, if they have accomplished all four national music courses in general upper secondary school. The school can also organize a specific diploma course (Opetushallitus, 2017).

Traditionally, music educators have focused on assessing the learner’s musical knowledge and skills (Juntunen & Westerlund, 2013). Given that the music grade has not influenced access to university, Finnish music teachers have not necessarily had to consider the goals of their assessment as deeply as some other teachers do. Furthermore, significant in the Finnish context, teachers have

the freedom to decide how to implement and assess diverse ideals and goals introduced in the curricula (Sahlberg, 2015). Hence, music grades might have been based solely on the teacher's perception of the student's activity. For some music teachers, the grade of the music might have been based on how well the learner performed a chosen musical task, and/or a comprehensive written exam on music theory or music history.

However, research has shown that assessment may drive learning more than any other factor (Hodgson & Pang, 2012; Segers & Dochy, 2001; Struyven, Dochy, & Janssens, 2005). The reason for this is simple: students tend to focus their learning according to how their performance is assessed (Biggs & Tang, 2007; Brown, Bull & Pendlebury, 1997). Therefore, careful planning of assessment provides a valuable opportunity for the teacher to enhance students' lifelong learning skills (Virtanen, Postareff, & Hailikari, 2015).

Although the current Finnish national core curriculum for general upper secondary school does not explicitly follow any learning theory, it has been influenced by the constructivist perspective, in which learning is seen as knowledge production (Gergen, 1995; Loveless & Williamson, 2013) that “involves the active creation of mental structures” (Nathan & Sawyer, 2014, p. 63). The constructivist perspective, together with other new learning concepts—such as phenomenon-based learning, personalized learning, peer-learning and blended learning—have also influenced teachers' assessment tasks (National Core Curriculum for Upper Secondary Schools, 2015; Lindblom-Ylänne, Pihlajamäki, & Kotkas, 2006). Hence, Finnish music educators are moving towards student-centred assessment tasks, with the aim of supporting their personalized learning goals (Juntunen & Westerlund, 2013). However, this results in the assessor also having to assess difficult areas of learning such as musical growth, the artistic process, musical identity, musical experience and musical interpretation.

The Finnish general upper secondary school education diploma in music is currently graded on a scale of 4-10. In addition to a numerical grade, a verbal assessment is attached to the student's diploma certificate. The diploma contains the student's self-assessment and the teacher's final assessment is confirmed by an assessment of an external expert. The evaluation of the diploma focuses on the student's musical competence, the integrity of the project, the purposefulness of the work, the scale of work, the process description, and the quality of the students' self-assessment. The teacher also facilitates the process from beginning to end (Opetushallitus, 2017).

According to the Finnish National Board of Education, the evaluation criteria for the music diploma are as follows:

#### 2.1.1. Criteria for grade 10 (excellent)

The project work or sample portfolio forms an integral whole and identifies the diploma holder's excellent musical knowledge, artistic originality, insight, criticality and clarity. Concise reflection demonstrates the depth of knowledge and the author maturity to judge her/his own performance. (Opetushallitus, 2017.)

#### 2.1.2. Criteria for grade 10 (excellent)

The basic idea behind the project work or sample portfolio is recognizable and demonstrates the diploma holder's musical competence. The solutions are mostly conventional, and the content is unilateral. The process and work reflection are concise but still identifies the student's expertise (Opetushallitus, 2017).

#### 2.2.3. Criteria for grade 6 (moderate)

The sample portfolio contains all the required parts, but it is incomplete. The selected samples do not highlight the diploma holder's musical skills and the contents of the sample portfolio are very one-sided. The process and work are considered modest (Opetushallitus, 2017).

### 3. Research problems and methods

The aim of the research described in this article was firstly, to identify Finnish music teachers and general upper secondary school students' perspectives of the general goals and importance of an education diploma in music, and secondly, to identify the ways the participants would improve the assessment practices of education diplomas in music.

The data was gathered by a posting a semi-structured, open e-questionnaire on the Facebook group called *Mitä tehdä musatunnilla...* [What to do in a music lesson...]. The Facebook group has almost 10 000 members and it is popular among Finnish music teachers. The questionnaire was targeted at Finnish general upper secondary school music teachers and at students who have recently completed education diplomas in music at a Finnish general upper secondary school.

The questionnaire started with the series of claims, and the participants were asked to respond by choosing one of the following options related to the aims: *I fully disagree, I disagree, I do not know, I agree, I fully agree*. Towards the end of the questionnaire, the participants were asked to provide

free-form answers to several questions regarding the development of the assessment of the education diploma in music.

The content analysis method was used to analyse for the structured answers and the thematic analysis method was used to analyse for the free-form answers (Joffe & Yardley, 2004). The items in the questionnaire were driven by a careful literature review. However, during the coding of the free-form answers, we tried our best to stay open to what the data might offer. In practice, this means that text was labelled into themes that allowed for later analysis of the data. The coding categories formed a hierarchy, with two higher-level categories that were divided into sub-categories.

#### **4. Results and Discussion**

Thirteen music teachers and five students completed the questionnaire during and after the spring semester 2019. Although, this may seem like a small proportion of all possible participants, it does outline a rough picture of the Finnish music teachers' perspectives on the research objectives. In general, the students' perspectives did not differ from those of the teachers.

##### *4.1. The importance of the education diplomas in music at Finnish general upper secondary schools*

The results of the analysis suggest that most of the respondents either agreed (N=4) or fully agreed (N=13) with the claim that establishing education diplomas in music is beneficial to the student. More specifically, respondents agreed (N=4) or fully agreed (N=10) with the claim that with the help of education diplomas in music, the students can combine their out-of-school music activities with the formal academic context. In other words, the participants suggested that the music diploma successfully serves as a medium that combines students' formal and informal music studies.

Most study participants (N=17) also thought that music diplomas channel students towards lifelong learning. All but one respondent thought that establishing the diploma improved students' musicianship and overall learning skills, supported by the comment: "Elements of the diploma, such as text production, video production and editing, photography, concert programs, advertising, marketing, audio engineering, must be prepared well in advance... These skills will be useful in the future".

In the same vein, most of the respondents either agreed (N=3) or fully agreed (N=12) with the questionnaire's claim that one of the academic subjects in a general upper secondary school graduation examination should be replaced by an artistic diploma. They also clearly agreed that the use of the general upper secondary school diplomas as one of the selection criteria for further studies

should be increased. Furthermore, all respondents except one agreed or fully agreed that through the use of education diplomas, teachers can assess their students' musical competence.

#### *4.2. The importance of the education diplomas in music at Finnish general upper secondary schools*

Whereas some of the participants thought that the current model is good enough, some participants demanded the “complete redesign of the artistic diplomas” in order to make the assessment fair and explicit. Only one participant fully agreed, and three agreed with the claim that the grades in Finnish general upper secondary school education diplomas in music are nationally comparable. However, only one respondent fully agreed and four agreed that the claim that education diplomas should be assessed by a national jury. In other words, while participants clearly found current, local assessment problematic, they did not believe that the use of a national jury could solve the problem. This might be linked to the fact that only one participant disagreed with the claim that learning areas such as musical identity and musical experiences that are difficult to assess should nevertheless be better taken into account in the assessment of a high school diploma. Furthermore, participants also stressed the importance of teacher-student relationships in order to focus the assessment on the long-term development of a student's musicianship.

Most of the participants did not find peer review as something that the developers of the assessment criteria of music diplomas should pay attention to. However, one participant suggested, “the students should be encouraged to do diplomas together, helping and assessing each other”. When asked ‘what kind of jury should evaluate music diplomas nationally, participants suggested that, in addition to the teacher's assessment, members of a jury should be experts in the genre of music currently being evaluated. For example, “in a work focused on one's own compositions, one evaluator could be a professional composer” as one of the teachers clarified. Some participants also suggested the use of “music diploma specialists”. Students suggested that the assessment should be made by “your own teacher, plus one outside teacher, and a third assessor who would be on the matriculation examination board”. Other students suggested that it would be good that “experienced music teachers from all over Finland would commit to a 4-year term on the examination board”.

The question of equality clearly stood out from the data. On the one hand, the participants pointed out that many small schools cannot provide students with all the music courses that build a ground for the successful diploma work. Using the words of one teacher-participant: “As long as there are schools where a diploma is not possible, it cannot be considered as a selection criterion for universities because it places young people in an unequal position”. On the other hand, the



participants pointed out that “currently, students from small rural schools might get a good grade easier than a student from a bigger school”. In order to develop an equal assessment process, one of the participants suggested the use of “partially guided or at least suggested repertoire choices”. One teacher also suggested, “The diplomas from the previous years should be found from a nationwide diploma bank of exemplary work”.

Many participants suggested that the main function of the assessment of the diplomas should be to support students’ (musical) learning. Hence, using the words from one of the teachers: “It is very important to nurture students’ musicianship...grade eight encourages them to make music also in the future...then you can say face to face what is worth developing”. The participants also emphasised that the student should receive feedback regularly during the process. However, this “requires sensitivity from the teacher.” as one of the participants wrote. The participants pointed out that the level and amount of continuous assessment depends on the students’ goals. Using one of the teacher’s words: “Some [students] use the diploma only to gain extra study points, some are genuine interested in their comprehensive self-development”. Many of the teachers also stated that the resources of the assessment work should be increased in order to give students support through the continuous assessment. One teacher described the current situation like this: “nowadays, due to the structure of studies, students start to undertake the diploma course just before they graduate, which makes continuous assessment and support impossible... and salary for teachers for their facilitation and assessment work is minimalistic”.

Many participants complained that the assessment criteria of the diplomas are not clear enough and rating on the current 7-step scale do not work out. They also provided ideas for the development of new practices: “Completing the diploma usually results in a grade of at least 8, at least according to current grade guidelines...in my opinion, evaluation scale should be Fail, Pass, or Pass with Distinction; If the criteria for evaluation were clearer, there would be less fragmentation and questioning...now, the criteria for evaluation do not allow for less than top-notch grades; Well-designed, variable test materials and assessment tools could make the diploma easier to understand...a structured test would also facilitate evaluation and make it more equitable... like for example the Cambridge degree in music, where the pre-materials, the test itself and its evaluation criteria and tools are clear...I would recommend such a base, of course, with some modifications, to suit a Finnish general upper secondary school”.

## **5. Conclusion and Discussion**

In line with an earlier report (Opetushallitus, 2011), the results of this study suggests that the Finnish general upper secondary school’s education diplomas in music is indeed beneficial for the

student in many ways. It fosters students' musicianship and overall learning skills by serving as a medium that combines students formal and informal music studies. Undertaking the diploma has the potential to channel students towards lifelong learning. However, an analysis of the data also suggests that there is a dichotomy between two essential goals on the assessment practices of the general upper secondary school artistic diplomas. On the one hand, participants wanted to make the grades of artistic diplomas nationally comparable. On the other hand, participants emphasised that the main function of the diploma assessment should be to support students' (musical) growth, which is hard to measure. In other words, participants found it problematic to incorporate different assessment tasks and goals in the context of the Finnish general school education diploma in music in its present form.

Against this backdrop, in line with Crisp's (2012) categorization as a base, we recommend that if the Finnish general upper secondary school education diploma in music is re-designed, it should have clear assessment formats for the use of diagnostic, formative, summative and integrative assessment tasks. Using these partly overlapping tasks the teacher, in co-operation with other professionals and the student, could better measure and foster students' past, current and future learning. The participants in this small-scale pilot study already suggested many ways to re-develop the diploma in order to make its assessment equal and explicit. The process of making Finnish general upper secondary school diplomas one part of the national matriculation exam is now a timely education policy debate in Finland. Hence, this study area needs further research with a larger data set. With wider and longer-term study that includes systematic testing in real life settings, it would be possible to develop a diploma that allows music educators both to encourage students towards lifelong musical learning, and to give music grades that are nationally comparable. Nationally comparable diploma grades could be considered in the entrance examinations in several fields of study, such as teacher education.

## References

- Biggs, J. B., & Tang, C. (2007). *Teaching for quality learning at university: What the student does*. Buckingham: The Society for Research into Higher Education and Open University Press.
- Black, P., Harrison, C., Lee, C., Marshall, B., & William, D. (2003). *Assessment for Learning: Putting it into Practice*. Maidenhead: Open University Press
- Boud, D. (2000). Sustainable assessment. Rethinking assessment for the learning society. *Studies in Continuing Education*, 22(2), 151–167.
- Brown, G., Bull, J., & Pendlebury, M. (1997). *Assessing student learning in higher education*. London: Routledge.
- Crisp, G. T. (2012). Integrative assessment: Reframing assessment practice for current and future learning. *Assessment & Evaluation*, 37(1), 33–43.
- Falchikov, N. (2005). *Improving assessment through student involvement*. London and New York: Routledge.
- Fautley, M. (2010). *Assessment in Music Education*. Oxford: Oxford University Press.

- Fautley, M., & Savage, J. (2011). Assessment of composing in the lower secondary school in the English National Curriculum. *British Journal of Music Education* 28(1), 51–67. Cambridge University Press.
- Gergen, K. J. (1995). Social construction and the education process. In L. P. Steffe & J. Gale (Eds.), *Constructivism in education* (pp. 17–39). Hillsdale, NJ: Erlbaum.
- Harlen, W. (2005). Teachers' summative practices and assessment for learning – tensions and synergies. *The Curriculum Journal*, 16, 207–223.
- Harlen, W. (2007). *Assessment of Learning*. London: Sage
- Hodgson, P., & Pang, M. Y. C. (2012). Effective formative e-assessment of student learning: A study on a statistics course. *Assessment & Evaluation in Higher Education*, 37, 215–225.
- Joffe, H., & Yardley, L. (2004). Content and thematic analysis. In D. F. Marks and L. Yardley (Eds.), *Research Methods for Clinical and Health Psychology*. (pp. 56–68). London: SAGE Publications Ltd.
- Juntunen, M. L. (2011). Musiikki [Music]. In S. Laitinen, A. Hilmola & M.-L. Juntunen (Eds.), *Perusopetuksen musiikin, kuvataiteen ja käsityön oppimistulosten arviointi 9. vuosiluokalla*. [Assessment of the learning outcomes in music, visual arts and crafts in the final 9th grade of basic education.] (pp. 36–94). Koulutuksen seurantaraportit 2011:1. [Follow-up reports 2011:1]. Helsinki: Finnish National Board of Education.
- Juntunen, M. L., & Westerlund, H. (2013). Laadukas arviointi osana oppimista ja opetusta [High quality assessment as part of teaching and learning]. In M. L. Juntunen, H. Nikkanen, & H. Westerlund (Eds.) *Musiikkikasvattaja. Kohti reflektiivistä käytäntöä* [Music educator. Towards reflective practice] (pp.71–92). Jyväskylä: PS-kustannus.
- Kearney, S. (2013). Improving engagement: The use of 'Authentic self-and peer-assessment for learning' to enhance the student learning experience. *Assessment & Evaluation in Higher Education*, 38(7), 875–891.
- Knight, P. T. (2002). Summative assessment in higher education: Practices in disarray. *Studies in Higher Education*, 27(3), 275–286.
- Laakso, T. (2019). *Lukiodiplomi kaipa kehittämistä – tässä 4 syytä* [General upper secondary school diploma needs developing – four reasons why]. Blog, 2 February 2019. Retrieved from <https://www.oaj.fi/ajankohtaista/blogiartikkelit/OAJ-blogi/2019/lukiodiplomi-kaipaa-kehittamista--tassa-4-syyta/> [Accessed 10 August, 2019]
- Lindblom-Ylänne, S., Pihlajamäki, H., & Kotkas, T. (2006). Self-, peer- and teacher assessment of student essays. *Active Learning in Higher Education*, 7(1), 51–62.
- Loveless, A., & Williamson, B. (2013). *Learning identities in a digital age. Rethinking creativity, education and technology*. New York, NY: Routledge.
- Ministry of Education and Culture (2014). General upper secondary education in Finland. Retrieved from <http://www.minedu.fi/OPM/Koulutus/lukiokoulutus/index.html?lang=en> [Accessed 9 August, 2019].
- Murphy, R., & Espeland, M. (2007). Making connections in assessment and evaluation in arts education. In L. Bresler (Ed.), *International Handbook of Research in Arts Education*, 16(1) (pp. 337–446). Dordrecht: Springer.
- Nathan, M. J., & Sawyer, R. K. (2014). Foundations of Learning Sciences. In K. R. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (2nd edition) (pp. 58–92). New York, NY: Cambridge University Press.
- National Core Curriculum for Upper Secondary Schools (2015). *National Core Curriculum for General Upper Secondary Education Intended for Young People*. Helsinki: Finnish National Board of Education.
- Opetushallitus (2011). *Selvitys lukiodiplomien suorittamisesta*. [Report on completing graduate diplomas]. Raportit ja selvitykset 2011:30. [Reports 2011:30]. Helsinki: Finnish National Board of Education.
- Opetushallitus (2017). *Musiikin lukiodiplomin ohjeet 31.7.2016 jälkeen aloittaneille opiskelijoille*. [Instructions on the graduate diploma in music for the students that have started their studies after 31.7.2016]. Helsinki: Finnish National Board of Education.
- Sahlberg, P. (2015). *Finnish lessons 2.0: What can the world learn from educational change in Finland?* New York, NY: Teachers College Press.

- Segers, M., & Dochy, F. (2001). New assessment forms in problem-based learning: The value-added of the students' perspective. *Studies in Higher Education*, 26(1), 328–433.
- Statistics Finland (2014). Retrieved from [http://tilastokeskus.fi/til/lop/2013/lop\\_2013\\_2014-06-12\\_tie\\_001\\_en.html](http://tilastokeskus.fi/til/lop/2013/lop_2013_2014-06-12_tie_001_en.html). [Accessed 9 August, 2019].
- Struyven, K., Dochy, F., & Janssens, S. (2005). Students' perceptions about evaluation and assessment in higher education: A review. *Assessment & Evaluation in Higher Education*, 30, 325–341.
- Tynjälä, P., Slotte, V., Nieminen, J., Lonka, K., & Olkinuora, E. (2006). From university to working life: Graduates' workplace skills in practice. In P. Tynjälä, J. Välimaa, & G. Boulton-Lewis (Eds.), *Higher education and working life – Collaborations, confrontations and challenges* (pp. 73– 88). Amsterdam: Elsevier.
- Virtanen, V., Postareff, L., & Hailikari, T. (2015). Millainen arviointi tukee elinikäistä oppimista [What kind of assessment facilitates life-long learning]? *Yliopistopedagogiikka*, 22(1), 1-11.